

# Effects of Lebazol Drugs on the Growth and Development of Cotton

<sup>1</sup>Abdualimov Shukhrat Khamadullaevich, <sup>2</sup>Sulaymonova Shahlo Novatullo kizi, Sulaymonov Inoyatillo Novatullo o'gli

<sup>1</sup>Doctor of Agricultural Sciences, Professor, Tashkent State Agricultural University, Tashkent.

<sup>2,3</sup> 2<sup>nd</sup> year master, Tashkent State Agricultural University, Tashkent.

**Abstract:** *Lebazol PK Max with 4-5 chin leaves of cotton, combing and flowering period with a set of Lebazole preparations. Lebazol Magfos, Nutripilant 8-8-6, Lebazol Bor, Lebazol Mags SK. When treated with Lebazole Potassium 450, Lebazole Quadriro Mix and Aminazole preparations, it was noted that the seedlings develop a smooth, healthy and rapid growth, even in adverse weather conditions.*

**Keywords:** cotton, growth-development, Lebazole, stimulator, seedling thickness, bolls weight, cotton yield.

## INTRODUCTION

One of the main tasks of scientific research in the field of cotton in the country in recent years is to improve the agro-industrial measures for the cultivation of cotton, low-cost and resource-intensive cultivation of environmentally friendly, high-quality cotton, high-efficiency modern innovative technologies, economic development.

One of the most effective ways to get healthy seedlings within adverse weather conditions in the current unfavorable weather conditions of the country, to improve the growth and development of plants resistant to many diseases in cotton in unfavorable climates, is to treat them with these stimulants before planting and one of the important measures to be taken during the period.

## MATERIALS AND METHODS

In recent years, many stimulants have been tested in cotton growing in different soil and climatic conditions of the country, and their effectiveness has been determined and put into practice. At the same time, new stimulants are being developed for local conditions and abroad, which requires determining the optimal duration and criteria for their application. In 2018, in the experimental fields of PSUEAITI, Lebazole group preparations (Lebazole Totol Sare, Lebazole Bor, Lebazole MagS SK, Lebazole Potassium 450, Lebazole Calcium-Forte, Lebazol Calcium-Forte, Lebazol Calcium-Forte, Lebazol Potassium 450) Tests of drugs such as 8-8-6 and Aminazole were studied in cotton in typical gray soils and natural climatic conditions of Tashkent region and therefore research work will continue.

In the experiment conducted by M.Azimova (2013), it was noted that feeding urea fertilizer from cotton leaves had a positive and effective effect on plant growth, development and yield, and the yield was higher by 1-2 c / h [4].

Sh.Kh.Abdualimov, K.Davronov and others, (2010) Gumimax stimulator When applied to seeds and cotton during the budding period, it was found that the growth of plants is resistant to adverse weather conditions and the yield of healthy flat seedlings is 8-13% higher [3] .

Sh.Abdualimov, F.Abdullaevs (2010) with Gumimax 0.8-1.0l / t for seeds and 0.3-0.3l / h for cotton during the flowering period has a positive effect on the growth and development of cotton. improves, bolls, flowers and buds increased, shedding decreased, early ripening, yield and its quality increased yield by 2.8-3.9 c / h [2].

Sh.Kh.Abdualimov, Kh.D.Akhmetova, S.Sh.Rashidova (2003) Development of plant growth by increasing field fertility when cultivating cotton seeds of Akdarya-5 variety with T-86, Nitratin, Tj-85 and XS-2 stimulants accelerated, and had a positive effect on the quality of the early ripening crop and its increased leaf surface, cotton yield and fiber quality, which increased the number of bolls, flowers and leaves pods and reduced shedding, which improved the harvest for a while [1].

To study the effectiveness of Lebozol PK Max, Lebozol Magfos and Nutriplant 8-8-6 in cotton, its effect on growth, development, harvesting process and yield during the growing season was determined. In the experiment, the effect of these drugs

on the growth and development of cotton when used in combination with Lebozol Bor, Lebozol MagS SK, Lebozol Potassium 450, Lebozol Quadro Mix and Aminoazol during 3-4 leaf leaves, budding, flowering periods was studied in Table 3.1.

Before starting the experiment, when studying the general biological condition of cotton in the field (1.06.2019), it was observed that the height of cotton is 9.5-11.1 cm, the number of true leaves is 2.1-2.9.

The following changes in the growth and development of cotton were observed in phenological observations carried out after treatment of cotton with drugs of the lebozol group during the period of 3–4 true leaves and combing. In particular, according to the results of the observation conducted on July 1, 2019, the height of cotton was 38.5-39.4 cm, the number of harvested branches was 5.4-6.1, the number of stems was 4.0-4.4, and among the options were significant and no difference was observed.

## DISCUSSION

In the experiment, the biological condition of cotton was again analyzed after the combined use of drugs of the Lebozol group during the flowering period of cotton. According to the data, on August 1, the height of cotton was 85.7 in the control, 90.7 when using the stimulator Uzgumi, 82.9 in the combined version of the experiment Nutriplant 8-8-6, Lebozol PK max and Lebozol Quadro Mix C, Nutriplant 8-8-6, Lebozol Magfos, 86.3 cm in the variant treated with Lebozol Quadro Mix S, Nutriplant 8-8-6, Lebozol Boron, Lebozol Mags SK, Aminoazol and Lebozol Potassium 450 in the combined variant 88.1, Nutriplant 8-8-6, In the variant treated with Lebozol Bor, Lebozol Mags SK, Aminoazol, and Lebozol Potassium 450, the yield was 13.3, respectively, at 88.3 cm; 14.7; 13.9; 14.3; 13.8 and 14.3 pieces, number of bolls 5.6; 5.8; 5.1; 5.8; 6.5 and 6.3, number of flowers and nodes 2.0; 2.6; 2.7; 2.5; 2.4 and 2.6 pieces, number of pieces 5.4; 6.0; 6.3; 6.5; Lebozol group drugs in 6.4 and 5.8 units showed high rates of growth of cotton and the appearance of generative organs in the variants used in combination.

At the end of the growing season of cotton (1.09.2019) the height of cotton was 100.5 cm, the number of branches was 16.4 and the number of pods was 9.2. In Uzgumi the plant was 100.8 cm tall, the number of branches was 16.1 and the number of pods 10.2 pieces, in the combined use of drugs of the Lebozol group, the length of the cotton was 97.8-104.7 cm, the number of harvested branches was 16.0-17.0, the number of pods was 9.8-10.8.

### Effects of drugs of the lebozol group on the growth and development of cotton, Andijan-37 variety, Tashkent 2019

№	Experimental options	Cotton 4-5 leaves, norm of application during budding and flowering	Plant height, cm				Chin leaf	number of harvested branches			number of buds		pieces flowers and knots, pieces
			1.06	1.07	1.08	1.09		1.06	1.07	1.08	1.09	1.07	
1	Control	-	9,5	38,5	85,7	100,5	2,1	5,8	13,7	16,4	4,2	5,6	2,0
2	Uzgumi	0,0-0,3-0,4 l/h	10,7	38,2	90,7	100,8	2,6	5,6	14,7	16,1	4,4	5,8	2,6
3	Nutriplant 8-8-6	0,0-4,0-4,0 l/h	10,5	36,5	82,9	97,8	2,3	5,4	13,9	16,0	4,3	5,1	2,7
	Lebozol PK max	0,0-5,0-5,0 l/h											
	Lebozol Quadro Mix S	1,5-0,0-1,5 l/h											
4	Nutriplant 8-8-6	0,0-4,0-4,0 l/h	11,1	38,7	86,3	104,7	2,9	6,1	14,3	17,0	4,5	5,8	2,5
	Lebozol Magfos	4,0-4,0-0,0 l/h											
	Lebozol Quadro Mix S	1,5-0,0-1,5 l/h											
5	Nutriplant 8-8-6	0,0-5,0-0,0 l/h	10,9	38,6	88,1	99,1	2,4	5,7	13,8	16,0	4,3	6,5	2,4
	Lebozol Bor	0,0-1,5-0,0 l/h											
	Lebozol Mags SK	0,0-0,0-3,0 l/h											

	Aminozol	2,0-0,0-0,0 l/h											
	Lebozol Potassium 450	0,0-5,0-0,0 l/h											
6	Nutriplant 8-8-6	5,0-0,0-0,0 l/h	10,3	39,4	88,3	103,0	2,2	6,0	14,3	16,2	4,0	6,3	2,6
	Lebozol Bor	0,0-0,0-1,5 l/h											
	Lebozol MagS SK	0,0-3,0-0,0 l/h											
	Aminozol	1,0-0,0-1,0 l/h											
	Lebozol Potassium 450	0,0-5,0-0,0 l/h											

## CONCLUSION AND ACKNOWLEDGEMENT

In conclusion, the experiment showed that in the typical gray soils of Tashkent region there are 4-5 true leaves of cotton, Lebazol PK Mags, Lebazol Magfos and Nutriplant 8-8-6 Lebazol, Lebazol Mags SK, Lebazol Potassium 450, When combined with Lebazole Quadro Mix and Aminazole preparations, plant growth and development were observed to be higher than the control option. The plant was found to be 2.5-4.2 cm tall and had 0.6 fruiting branches and 0.3-1.7 more bolls.

Nutriplant 8-8-6, 5.0 l / ha during cotton flowering or flowering, Lebazole Pk max 5.5 l / h during cotton flowering and flowering, and 4-5 chin / leaf during lebazole magfos and at the rate of 4.0 l / h during lactation and combined treatment with Lebazole Boron, Lebazole Mags SK, Lebazole Potassium 450, Lebazole Quadriro Mix and Aminazole are recommended to be included in the list of growth control substances approved by the Republican State Chemical Commission.

## Used literature

1. Abdualimov Sh.X, Ahmedova D.X, Rashidova S.Sh. Influence of different growing substances on seed germination, growth, development and productivity. // Synthesis, properties and applications of biologically active polymers. A collection of theses. - Tashkent, 2003. -p.30-31.
2. Abdualimov Sh.H., Abdullaev F. Gumimax is an effective stimulator.// Source and water-saving technologist of abundant crop production in the agricultural system. Proceedings of the international scientific-practical conference. O'zPITI. – Tashkent, 2010.-P.233-236.
3. Abdualimov Sh., Davronov Q., Soriev Y., Karimov Sh.Abdullaev F. Effect of Gumimax on cotton // Journal of Agro Science. - Tashkent, 2010 -№2 (14) -B-.17-18.
4. Azimova M. Feeding the plant from the leaves. // Improving agrotechnologies for the care of cotton and cottonseed crops.OzPITI.collection of articles.-Tashkent, 2013.-P.154-157.